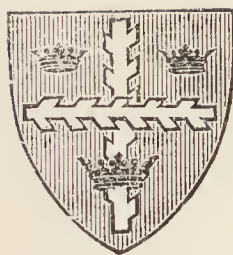


**BOROUGH OF**



**COLCHESTER.**

---

**URBAN DISTRICT.**

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**ANNUAL REPORT**

OF THE

**MEDICAL OFFICER OF HEALTH**

FOR THE YEAR

**1911.**

# BOROUGH & PORT HEALTH COMMITTEE, 1911.

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HIS WORSHIP THE MAYOR  
(Councillor R. B. Beard).  
*Deputy-Chairman.*

Alderman Henry Laver, J.P., M.R.C.S., F.S.A.,  
*Chairman.*

Alderman E. Alec Blaxill.	Councillor F. W. Richards.
Councillor J. W. Bare.	„ W. H. Taylor.
„ H. J. Everett.	„ A. Went.
„ E. North,	

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## *Staff of the Public Health Department, 1911.*

*Sanitary Inspector :*

T. Wells, Cert.R.San.Inst.

*Assistant Sanitary Inspector :*

C. S. Humphreys.

*Disinfectors :*

G. T. Hewes.

*Health Visitor and School Nurse :*

Miss E. M. Gillard, Cert.H.V. and S.N., C.M.B.

*Clerk and Laboratory Assistant :*

A. Fisher, Cert.R.San.Inst.

*Medical Officer of Health :*

W. F. Corfield, M.D., B.S., D.P.H.

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PUBLIC HEALTH DEPARTMENT,  
36, STANWELL STREET,  
25th March, 1912.

TO THE MAYOR, ALDERMEN AND COUNCILLORS  
OF THE BOROUGH OF COLCHESTER.

GENTLEMEN,

I have the honour to present to you my third Annual Report upon the health and sanitary circumstances of the Borough of Colchester.

I have re-arranged the Report and tried to bring it more closely in accordance with the recommendations in the memorandum of the Local Government Board issued for the guidance of Medical Officers of Health when preparing their Annual Reports.

The following Report may be found to contain matter that may at first appear to be unnecessary, but it must be remembered that probably neither the County Council nor the Local Government Board are so well acquainted with Colchester as its own inhabitants.

The year 1911 was a census year, and I am of opinion that if each census year is taken as a fitting occasion for a complete survey of the more permanent social and sanitary conditions of the district, each Report for the intermediate years may well be confined to a description of the actions and events of the year with which it deals.

The past year saw many important changes. Among these may be mentioned the adoption by the Corporation of the Notification of Births Act, 1907, and part of the Public Health Acts (Amendment) Act, 1907, also the final of the series of Tuberculosis Regulations was issued.

These Acts and Regulations have necessarily thrown a good deal of fresh work upon the Department, and this has been partly met by the appointment of a new officer as Health Visitor and School Nurse.

Work under the Notification of Births Act, 1907, was lightened very considerably by the splendid help given to the Department by Miss Sasse, who has now acted as voluntary Health Visitor for the past eighteen months.

The work of the Department has run smoothly and without friction of any sort, and my thanks are due to the staff of the Department and of the Isolation Hospital for their loyal assistance throughout the year.

I also take this opportunity of offering my sincere thanks to the Chairman and members of the Borough and Port Health Committee for their cordial support, which I have much appreciated.

I am, Gentlemen,

Your obedient servant,

WALTER F. CORFIELD,  
*Medical Officer of Health.*

# Report of the Medical Officer of Health for the Year 1911.

## VITAL STATISTICS.

The following table gives the more important figures for comparison with other towns:—

Population (at Census, 1911)	...	43,463		
Birth-rate	...	22·4	per 1,000 inhabitants.	
Nett Death-rate	...	12·4	„	„
Average Nett Death-rate for the previous 10 years	...	13·0	„	„
Infantile Death-rate	...	107·7	„	births.
*Zymotic Death-rate	...	1·2	„	inhabitants.
Respiratory Diseases Death-rate	...	1·4	„	„
Pulmonary Tuberculosis	„	0·66	„	„
Other Tubercular Diseases	„	0·09	„	„
Cancer Death-rate	...	0·96	„	„
Area of the Borough	..	11,333	acres.	

\*The Zymotic Death-rate is calculated from the number of deaths caused by the seven principal Zymotic diseases, viz., Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Enteric Fever and Infantile Diarrhœa.

The year 1911 being a census year is very important from a statistical point of view, as all rates of mortality or sickness that are based upon the number of the population are true rates in a census year. In inter-censal years these rates are calculated for an estimated population which probably gets more and more incorrect as the year under consideration gets further from the census year.

In 1911 the population was found to be 43,463 by means of the census, giving an increase of 1,188 over the estimated population of 1910.

The natural increase—that is the increase of births over deaths—was 436.

The Garrison and families living in barracks are included in the population, and the average daily strength of the Garrison was—

Officers	...	...	...	117
Men	...	...	...	3394
Women	...	...	...	314
Children	...	...	...	521
Average daily total strength			...	4346

This is an increase of 2 above the average daily total strength for 1910.

The above figures were kindly supplied by Colonel F. J. Jencken, Administrative Medical Officer, Colchester District.



## BIRTHS.

The corrected number of births registered in 1911 was 975. That is 17 more than in 1910, in which year the number of births was unusually low. But, unfortunately, even so the birth-rate is 0·2 lower than in 1910 and 2·0 lower than the rate for England and Wales.

The births were divided into 480 boys and 492 girls. They were distributed in the four wards as follows :—

North 152.          South 370.          East 251.          West 199.

For the third consecutive year there were 36 Illegitimate Births—equal to 3·4 per cent of the total births.

## DEATHS.

The total number of deaths registered in the district during 1911 was 547. Of the persons who died 32 were non-residents and their deaths were transferred to their own districts, and must be subtracted from the total, leaving 515 deaths. But 24 residents died in other districts, and these must be added, giving the nett deaths belonging to the district as 539. This gives a death-rate of 12·4. This rate is only 0·4 higher than that of 1910, a most satisfactory fact for two reasons, firstly the number of deaths of residents transferred to Colchester from other districts is a great deal larger than it has ever before been, owing to the new methods of transfer adopted by the Registrar General, and secondly there were 52 deaths from Diarrhoea owing to the abnormally hot summer.

Among the military population 30 deaths took place.

The following table gives a comparison of the average crude death rates of England and Wales and Colchester in ten yearly periods.

### *Average Crude Death-rates per 1,000 of Population.*

	1881—1890.	1891—1900.	1901—1910.
England and Wales...	19·1	18·2	15·3
Colchester ...	17·6	15·7	13·8

The number of deaths that occurred in Public Institutions is given in the following table.

	Residents.	Non-Residents.	Total.
Essex County Hospital ...	36	17	53
Colchester Workhouse...	54	—	54
Eastern Counties Asylum ...	—	14	14
Mile End Infectious Hospital...	3	—	3
	<hr/> 93	<hr/> 31	<hr/> 124

It is of interest to compare the Birth and Death rates of Colchester with those of England and Wales as a whole, and with those of the 77 great towns and 136 smaller towns of the Registrar-General. Colchester is one of the 136 smaller towns.

	Annual Rates per 1,000 Living.			Deaths under One Year to 1,000 Births.
	Births.	Deaths.		
		Crude.	Corrected*	
England and Wales .. .. .	24·4	14·6	14·6	130
77 great towns .. .. .	25·6	15·5	16·4	140
136 smaller towns, including Colchester ..	23·4	13·8	14·4	133
England and Wales, less the 213 towns ..	23·4	13·9	13·1	118
Colchester .. .. .	22·4	12·5	12·5	105

\*The corrected death-rates are the rates which would have been recorded had the age and sex constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901.

## NATURAL AND SOCIAL CONDITIONS.

Colchester District covers an area of 11,333 acres. The whole area is drained by the River Colne and its tributaries. The river enters the district about the middle of its western boundary and, passing round the town upon the northern side of it, runs in a south-easterly direction and crosses the borough boundary again near its south-east extremity.

The town stands in the angle formed by the river in its south-easterly bend, and the ground rises steeply from the river bed towards the town.

The oldest part of the town stands upon this high ground, which extends beyond the district both upon its southern and western sides. This plateau is composed of sand and gravel and is at its highest point over 100 feet above sea level.

To the north and east of the river the ground also rises, but not so abruptly, and in these directions the London clay is only covered by sand and gravel in large patches, the high ground being formed of sand and gravel and the intervening low ground of London clay.

The chief occupations in the town are in connection with the iron works and with the manufacture of clothing; also at the Hythe Quay many persons are employed in loading and unloading barges and in other riverside work.

In the country round there are many out-workers connected with the clothing trade, besides many persons engaged in agriculture and farming. There are also several firms of rose-growers.

Two institutions in the district deal with sickness and disease—one, the Colchester Workhouse Infirmary, and the other, the Essex County Hospital.

The amount of Poor Relief for the year ended Michaelmas, 1911, was for In-Maintenance £4,161 1s. 10d., and for Out-Relief £2,744 0s. 5d.



At the Essex County Hospital there were 100 beds available for use throughout the year, and the average number of patients resident daily was 83. In the out-patient department 2,920 new out-patients, not including renewals, were treated, and the total number of out-patient attendances was 8,903.

The Essex County Hospital, though situated in Colchester, of course serves a much larger area than the Colchester district, and many patients included in the above numbers attended the Hospital from places beyond the Borough boundaries.

## WATER SUPPLY.

The town is supplied with water from the Lexden Springs and a deep well at the Waterworks, Balkerne Hill.

The Springs yield about 400,000 gallons per day. The well is 79 feet deep, and has an 18-inch boring carried into the chalk to a total depth of 384 feet. The well has yielded 900,000 gallons a day on an average during a month's summer pumping. Both spring and well water are pumped into the water-tank at the top of Balkerne Hill. This tank holds 220,000 gallons, or about one quarter of an average day's supply.

The Lexden Spring water was regularly examined bacteriologically every month, and during the year such examination showed a uniformly satisfactory result. The water from the mains was also analysed both bacteriologically and chemically from time to time. The subjoined tables give the results of these analyses.

### *Bacteriological Analysis of Colchester Water Supply.*

Date of Sampling.	Source.	Number of Organisms developing per C.C. at		Bacillus Coli.			Streptococci.		
		37°C	22°C	1	10	50	1	10	50
1911.									
January 13th	Storage Reservoir containing Lexden Spring Water	3	24	—	—	—	—	—	—
Feb. 17th ..		Plate spoilt.	2	—	—	—	—	—	—
March 17th..		0	3	—	—	—	—	—	—
April 12th ..		1	42	—	—	—	—	—	—
May 15th ..		4	9	—	—	—	—	—	—
June 13th ..		1	2	—	—	—	—	—	—
July 18th ..		8	13	—	—	—	—	—	—
Sept. 15th ..		9	45	—	—	—	—	—	—
October 11th	Artesian Well ..	3	8	—	—	—	—	—	—
Nov. 23rd ..		48	230	—	—	—	—	—	—
Nov. 23rd ..		3	10	—	—	—	—	—	—



*Chemical Analysis of Town Supply.*

			Parts per 100,000.
Saline or Free Ammonia	...	...	0·02
Albuminoid Ammonia	...	...	·008
Chlorine	...	...	14·8
Nitrogen as Nitrates	...	...	1·0
Nitrites	...	...	nil.
Oxygen absorbed in 2 hours at 80°F	...	...	·04

Mr. Charles E. Bland, the Waterworks Superintendent, has submitted the following report upon the work of his department during the year.

### **REPORT OF THE WATERWORKS SUPERINTENDENT.**

I have pleasure in submitting my report upon the work of the Water Supply Department for the year ended 31st December last.

*Mains.*—The present total length of the mains in the Borough is 50 miles 1,025 yards. 265 yards of additional mains have been laid during the year, and 1,230 yards replaced.

*Houses Supplied.*—There are 9,253 houses supplied from the Council's mains, exclusive of trade and business premises, stables, etc., and the Stanway district. In connection with the latter there are 119 houses, bringing the total number, *exclusive of the Garrison*, to 9,372.

*Number of Persons Supplied.*—Taking an average of  $4\frac{1}{2}$  people per house, and deducting empty houses, the estimated civilian population receiving a supply from the Council's mains numbers 39,811. These figures do not include the Stanway district above referred to, or trade, etc., supplies.

Basing the Stanway district upon the above estimate, the population there supplied numbered 535. The average strength of the military was 4,346, making a grand total of 44,692 using the water of the Council.

*Meters.*—The total number of meters in use is 228.

*Defective Fittings.*—4,280 leaky and defective fittings were discovered by our Inspectors while examining properties for the purpose of waste detection during the year. Of this number 3,742 were repaired gratuitously by our staff, and in the remaining 538 cases notices were sent to the owners, who (with one exception) speedily caused the necessary work to be executed.

*Quantity of Water Pumped.*—The total quantity of water pumped during the year was 372,400,750 gallons, which is arrived at as follows :—

	Gallons.
Pumped into the Water Tank, Balcerne Hill ... ..	326,420,750
Surface spring water supplied (by separate mains and reservoirs) to Great Eastern Railway Company's North Station ...	45,980,000
	<hr/> 372,400,750 <hr/>

*The Average Consumption per head per day* for all purposes, including road watering and making, fire extinguishment, flushing sewers, trade and business purposes (but excluding the G.E.R. Company's spring water supply) was 19·48 gallons. This is an increase as compared with previous years, owing to the drought of last summer.

*Hydrants.*—There are 450 hydrants in the borough for fire extinguishment, road watering and making, and other purposes.

*Covered Service Reservoir.*—Nothing further has been mooted during the year, but its want was much felt during last summer.

*Pumping Plant.*—The Council have ordered the foot-valves to be replaced by suction valves of the latest design, and it is firmly believed that very great advantage will be derived in pumping by this work both in efficiency and economy.

*Finance.*—The income of the undertaking is still increasing, and its position financially and otherwise is very satisfactory.

(Signed) CHAS. E. BLAND,

Waterworks Superintendent.

## RIVERS AND STREAMS.

The River Colne passes through nearly the middle of the Borough. No large tributary joins it in this part of its course, but Solway Brook, which forms part of the eastern boundary, joins it as it passes out of the borough.

A short portion of the southern boundry is formed by the Roman River.

No trade effluents are turned into the stream. The purified effluent from the sewage works, which lie upon the eastern side of the town, is discharged into the river, the crude sewage having been treated in settling tanks and by downward filtration at the works.

Solway Brook runs through agricultural land, and little or no pollution can take place in its course.

## DRAINAGE, SEWERAGE AND SCAVENGING.

Mr. H. Goodyear, Borough Surveyor, has submitted the following Report of the work of his department during the year.

### BOROUGH SURVEYOR'S REPORT.

I beg to submit the following particulars of works carried out by this Department during the year 1911 :—

*Drainage Works.*—Glazed stoneware sewer pipes laid :

Bergholt Road...	...	947	ft. of 9 inch.
High Street	...	11½	„ 12 „
Total		958½	lineal feet.

4 manholes, 1 lamphole, and 1 flushpipe have been constructed.

The total length of sewers in the Borough is now 60 miles 766 yards.

*Buildings and Drains.*—135 plans have been submitted to the Council, representing 69 dwelling-houses, 2 public buildings, 11 workshops, 43 additions to other buildings, and 58 other buildings.

67 dwelling-houses and 55 other buildings have been erected.

84 houses, old and new, have been provided with new drains and sanitary fittings.

Buildings and drains have necessitated 1,018 inspections, and all new drains have been subjected to a water test before being passed for use.

*Road Maintenance.*—The main and other roads in the borough have been kept in an efficient state of repair with Leicestershire Granite, Kentish Sifted Red Flints, Kentish Ragstone, and local stone, rolled in by steam rollers.

*Footpath Paving, Kerbing and Channelling.*—

2,133	square yards of cement concrete paving,
1,141	„ „ tar paving,
160½	„ „ granite, Yorkstone, ragstone, and concrete block crossings,
686	lineal yards of York kerbing,
367	„ „ granite kerbing, and
1,534	„ „ granite, ragstone, blue brick and concrete block channelling

have been laid down in various parts of the Borough.



*Removal of Refuse and Cleansing of Streets.*—The Council have caused to be removed :—

10,196	cart-loads of house refuse,
866	„ trade „
786	„ garden „
1,317	„ sewage from deadwells,
1,422	„ slop from street gullies,
8,864	„ road-scrappings, and
20,814	truck-loads of horse-droppings and other refuse from streets and roads.

The whole of the refuse has been removed from the Barracks and other Government properties, under contract, by Messrs. Colliers, Ltd.

*Street and Road Watering.*—14,491,130 gallons of water have been used for street and road watering and road-making.

*Treatment of Roads for Prevention of Dust.*—140½ tons of prepared tar have been used with very satisfactory results on the principal roads of the Borough.

*Road Improvements.*—Two very important widening improvements have been carried out at dangerous corners on Berechurch Road, and a portion of Old Heath Road, opposite Whitehall, has been considerably widened.

445,500,100 gallons of sewage have been pumped into the tanks at the Sewerage Outfall Works, equal to an average daily flow of 1,220,548 gallons. After precipitation a residue has been left of 21,982 tons of liquid sludge, which has been treated with lime, and reduced by pressing to 4,396½ tons, approximately, of portable manure, or sludge, all of which has been disposed of to farmers and others in the borough and district.

(Signed) H. GOODYEAR,

Borough Engineer and Surveyor.

The whole town is supplied with an efficient water-carriage system of sewerage which also extends to all the outlying villages in the district, excepting Shrub End. The need for a sewerage system in this district has been realized, and a sewer is to be laid down early in 1912.

Particular attention was paid during the past year to the unsuitable receptacles used at many houses for the reception of rubbish and other house-refuse, and in this way 374 properly covered sanitary dust-bins have been supplied to houses where previously old pails, wooden tubs, or similar things were used to hold the refuse from the house.

The refuse is collected regularly all over the district, once a week in the town, but less frequently in the more rural parts.

At the present time this refuse is got rid of in several large tips, situated in different parts of the Borough, but there can be no doubt that within a few years the need for a Refuse Destructor will have to be considered, for house refuse cannot be shot anywhere, and the present tips cannot last many years longer.

A destructor is a much more sanitary way of getting rid of refuse, and, besides the nuisance that may arise from large accumulations of refuse, these heaps afford abundant breeding ground for flies and rats.

There are 42 cesspools in the district, but many of these will be done away with by the extension of the sewer to Shrub End.

## **REPORT OF THE SANITARY INSPECTOR.**

I have the honour of presenting my Sixteenth Annual Report.

*Complaints as to Nuisances.*—During the year I have received 464 complaints with reference to nuisances. A prompt inquiry is made and the premises visited, and any premises contiguous are also inspected, and any nuisances discovered are dealt with either by written or verbal notice. The occupiers are in some instances liable for the nuisances detected, and a notice promptly served upon them usually has the desired effect.

*Drainage Work and Supervision.*—As mentioned in past Annual Reports many visits are made while the re-construction or alteration of drainage work is proceeding, so that the necessary examination and tests can be carried out before the drains are covered up.

*Infectious Diseases, Disinfections, etc.*—Immediately upon an infectious disease being notified, the house is visited by the Medical Officer of Health or myself, and in nearly every case the patient is removed to the Infectious Diseases Hospital at Myland. Thorough disinfection of the premises is then carried out; the bedding is afterwards removed and disinfected in the steam disinfector.

The bedding from houses in which a death from Phthisis has occurred is also removed and disinfected by steam, and the room in which the patient died is sprayed thoroughly, and afterwards cleansed.

The number of beds and other articles removed during the year was 1,185. I have also disinfected eight library books before they were returned to the Public Library.

*Housing.*—A systematic house to house inspection has been carried out as in former years, and by this means various nuisances are discovered, and where the defects are of a structural character, notices are served upon the owner.



Tabulated particulars of the various nuisances and defects discovered are enumerated in the report of the Medical Officer of Health.

In addition to the above inspections, houses are inspected where there are cases of infectious disease and special inspections of houses are made without complaint received. Houses are also visited under the Home-workers Orders made under the Factory and Workshop Acts. The total number of houses inspected during the year was 2,149.

As mentioned in my last Annual Report, I purposed reporting upon premises without any ash-pit accommodation, and for several months past I have reported defaulting owners; there have been more than one hundred statutory notices served to provide proper sanitary dust-bins, and where the owner has failed to comply with such notice the Council have themselves carried out the work, charging the owner with the cost. In most cases owners themselves have done the work and in all no fewer than 374 sanitary dust-bins have been supplied to houses during the year; this work must have a beneficial effect upon the conditions and surroundings of the premises, and will reduce to a minimum the breeding ground of the common house-fly, and one important result of such work I trust will be to reduce the cause of infantile diarrhoea.

*Housing and Town Planning, Etc., Act, 1909.*—Under the above Act I have inspected and reported upon 42 houses, the unsatisfactory conditions of which, from a structural and health point of view, were in such a state in my opinion as to render them unfit for human habitation. These premises were further inspected by the Medical Officer of Health and myself, and eighteen houses were reported for closing orders to be made.

Statement A gives in detail the various works which have been carried out as a result of the above inspections.

The Registered Common Lodging Houses have been regularly visited. They are kept clean and their general management is satisfactory. One house has been registered during the year, viz., 63, East Hill.

*Tents, Vans, Sheds, and Similar Structures.*—As reported in past years in my Annual Reports, I have inspected any Vans which entered the Borough in order to see if any overcrowding or cases of infectious disease existed among the occupiers. In no instance was either condition found to exist.

Fried fish shops, and other shops where meat and other foods are exposed for sale, have been visited. The premises of ice cream vendors have also been visited and inspected. During my inspection of fish shops several boxes of fish were surrendered to me as being unsound, such fish being subsequently destroyed.

The offensive trades (gut scrapers) have been very frequently



visited during the year, and the occupiers' attention has been called to any irregularity or nuisance which was discovered on my visits.

					Public Health Act.	Factory and Workshop Act.	
<i>Complaints Received</i>	..	..	..	..	459	..	5
<i>Inspections made—</i>							
Visits made to Slaughterhouses	..	..	..	..	459	..	0
„ „ „ Bakehouses	..	..	..	..	6	..	115
„ „ „ Dairies and Milkshops	..	..	..	..	150	..	0
„ „ „ Cowsheds	..	..	..	..	83	..	0
Workshops Inspected	..	..	..	..	30	..	326
„ „ Cleansed	..	..	..	..	4	..	32
<i>Housing—</i>							
Houses Cleansed under Public Health Act 1875	..	..	..	..	46	..	6
Rain Water Pipes and Gutters renewed or repaired	..	..	..	..	46	..	14
Houses Disinfected	..	..	..	..	107	..	0
Overcrowding Abated	..	..	..	..	7	..	1
Houses Placed in Habitable Repair	..	..	..	..	4	..	0
„ „ Closed by Owners	..	..	..	..	3	..	0
Defective Roofs Repaired	..	..	..	..	29	..	10
<i>Drainage and Sewerage—</i>							
Cesspools Abolished	..	..	..	..	1	..	0
Privies Converted into Water Closets	..	..	..	..	4	..	0
„ „ and Water Closets Repaired	..	..	..	..	26	..	11
Houses Connected with Sewers	..	..	..	..	1	..	0
Privies Abolished	..	..	..	..	1	..	0
New Closets Built	..	..	..	..	1	..	2
Water Supply for Closets Provided	..	..	..	..	11	..	5
Defective Water Fittings for W.C.'s Repaired	..	..	..	..	36	..	26
Filthy Closets Cleansed and Limewashed	..	..	..	..	22	..	7
Closets Unstopped	..	..	..	..	97	..	13
New Closet Pans or Apparatus Fixed	..	..	..	..	26	..	4
„ „ Seats and Risers Fixed in W.C.'s	..	..	..	..	7	..	4
„ „ Floors Laid or Repaired in W.C.'s	..	..	..	..	6	..	5
Drains Unstopped	..	..	..	..	88	..	16
„ „ Repaired	..	..	..	..	12	..	2
Old Drains Abolished	..	..	..	..	7	..	0
New Drains Laid	..	..	..	..	10	..	2
Disconnection Syphons Fixed	..	..	..	..	5	..	0
„ „ Chambers Built	..	..	..	..	5	..	0
Fresh Air Inlet Pipes Fixed	..	..	..	..	5	..	0
Foul Air Exit Pipes Fixed	..	..	..	..	6	..	0
Bell and other Insanitary Traps Abolished	..	..	..	..	9	..	2
Trapped Yard Gullies Fixed	..	..	..	..	31	..	5
Defective and Insufficiently Ventilated Soil Pipes	..	..	..	..	2	..	0
Bath and Lavatory Waste Pipes Trapped or Disconnected from Drains	..	..	..	..	2	..	0
Ashpits Abolished	..	..	..	..	56	..	10
Ashbins Provided	..	..	..	..	290	..	84
<i>Nuisances—</i>							
Manure and Offensive Matters Removed	..	..	..	..	57	..	3
Defects Reported to Borough Surveyor	..	..	..	..	43	..	0
Animals Improperly Kept or Removed	..	..	..	..	100	..	0
Nuisances Detected or Reported	..	..	..	..	544	..	167
Nuisances Abated	..	..	..	..	514	..	147
Notices Served	..	..	..	..	548	..	162
Statutory Notices Served	..	..	..	..	104	..	0
Other Blemishes Abated	..	..	..	..	81	..	64

*Other Matters—*

Yards Paved	..	..	..	8	..	0
Seizures or Surrenders of Unsound Meat	..	..	..	6	..	0
Samples of Water taken for Analysis	..	..	..	5	..	0
Wells Sunk, Cleansed or Repaired	..	..	..	5	..	0
Wells Closed	..	..	..	1	..	0
Water Supply Provided for Domestic Purposes	..	..	..	1	..	0
Leaky Taps Repaired where Drawing from Public Mains	..	..	..	17	..	15
Ventilation Provided	..	..	..	53	..	10

I have pleasure in again recording that in no case was it necessary to institute Police Court proceedings to procure the abatement of a nuisance.

*Drain Testing Statement B.*

The following table shows the locality of Sewer Gas Escapes—

Into Kitchens and Sculleries	..	..	..	..	1
„ Cellars..	..	..	..	..	2
„ External Water Closets	..	..	..	..	13
„ Internal Water Closets	..	..	..	..	7
„ Dining Rooms and other parts of House	..	..	..	..	2
From Heads and Joints of Rain Water Pipes..	..	..	..	..	6
„ Joints of Soil Pipes	..	..	..	..	15
„ Defective Drains	..	..	..	..	9
„ Defective Traps in Yards	..	..	..	..	2
„ Rat Holes in Yards	..	..	..	..	1

*Factory and Workshop Acts.*—The total number of workshops on the Register, including bakehouses, is 568. Most of these have been visited, and where any infringements of the Factory and Workshop Acts were discovered notices were served to have them remedied. My assistant, who devotes only part of his time to the carrying out of the above Acts, has, in conjunction with myself, made 405 inspections, and these include visits to bakehouses, domestic workshops, laundries, dressmakers and milliners, tailoresses, shirtmakers, bootmakers, board tailors, sack repairers, upholsterers, basket makers, etc.

The number of lists received under the Act is 98, and the number of home-workers' premises inspected is 745. The total number of outworkers whose names are on the lists in the Borough is 2,050, outside the Borough 1,527.

In conclusion, I beg to thank the chairman and members of the Borough and Port Health Committee for the support that they have given me in the carrying out of my duties.

THOMAS WELLS,

Sanitary Inspector.

**COMMON LODGING HOUSES.**

There are now three Common Lodging Houses in the Borough, one more having been registered during the year.

Registration was only allowed after the premises had been put into a thoroughly sanitary condition and proper washing and lavatory accommodation provided as laid down in the Bye-laws.

All three houses are visited at all times of the day or night, and any irregularity is at once dealt with either by informal notice or by report to the Health Committee.

## **OFFENSIVE TRADES.**

Until 1911 the trade of a gut-scraper used to be carried on just inside the Borough boundary beyond Mile End. The position was a most unsatisfactory one, as the sheds in which the work was done were upon the banks of a small stream and a good deal of objectionable material found its way into the stream. There was no drainage, the waste material being collected in a small cesspool, from which it was carted and emptied upon the adjoining fields. Constant complaints of the nuisance thus caused were received.

In 1911 an application was made by the owners of this factory to be allowed to move from the Mile End site to one at the Hythe near to the Sewage Works. This they were allowed to do, and though complaints were received, particularly during the summer months, yet there can be no doubt that the present is a great improvement upon the former position. Their drainage goes into the town main sewer and so causes no nuisance, and a much better watch can be kept upon the cleanliness of the premises and methods adopted for reducing any smell that may arise.

There is another registered gut-scrapers' business in the Mile End district. This business is a much smaller one, and was only carried on occasionally during the year, being sometimes closed for several weeks together.

In the town the trade of a fat-melter is carried on, no complaints were received of this business during the year.

A tripe-boiler was found to be carrying on his business in an unsuitable underground room. He was warned of the penalties that he was incurring, and discontinued the business.

## **SCHOOLS.**

The public Elementary Schools in the district are visited and inspected every year by the Medical Officer of Health, who is also the School Medical Officer. At his visit he consults with the head teacher and enquires into and examines the ventilation, lighting, latrine accommodation, and other matters of importance to the well-being of the scholars.

Many improvements in the school buildings have been obtained in this way. Coloured glass in windows has been



removed and replaced by clear glass, hopper windows have been introduced, and the heating of the school rooms diminished or increased where necessary.

All the Elementary Schools in the Borough but one are supplied from the town mains. This one, St. John's School, Ipswich Road, has no water supply of its own, being dependent upon a well, some 80 yards distant, for all the water necessary for cleaning, washing, or drinking purposes. Though it is not a large school, yet during 1911 a new class-room was added, and it has now become a matter of importance that a more convenient supply of water should be provided.

By the system of notification of infectious disease by head-teachers, the Medical Officer of Health, during term-time, very soon learns of an outbreak of one of the non-notifiable infectious diseases, and he is able to exclude those ill with the disease and those contacts who are liable to carry infection. A more detailed account of the mechanism of these exclusions is given later in this report.

The medical inspection of children in the public elementary schools is carried out by the Assistant School Medical Officer, Miss Agnes Oswald, and two afternoons a week are given up by her to an inspection clinic, at which children suffering from such conditions as ringworm, impetigo, or pediculosis are seen and excluded or re-admitted to school as may be necessary.

At this inspection clinic delicate children are also re-inspected occasionally, and in this way early cases of pulmonary tuberculosis are sometimes found. In 1911 an eye-clinic was started, at which the Assistant School Medical Officer examines the eyes of such necessitous children as are found at the routine inspection to have defective sight.

## **MILK SUPPLY.**

During the past year the whole of the milking herds of the Borough were examined by a veterinary surgeon with a view to excluding cows with tuberculosis.

An arrangement was made whereby the veterinary surgeon was supplied with sterile bottles, and these he filled with milk from any cow that he suspected to be suffering from tuberculosis, particularly tuberculosis of the udder.

In all 509 cows were examined, and from these six samples of milk were submitted to bacteriological examination at the Borough laboratory.

Only one of these six was found to contain tubercle bacilli, inoculation having given a negative result in the other five.

The farmer who owned this cow was at once seen, and the danger of his continuing to supply milk from this cow pointed out to him. He wisely agreed to have the cow slaughtered, and subsequently he informed the Medical Officer of Health of the time and place of slaughtering. When the carcass was examined, both lungs, the liver and udder were found to contain many tuberculous lesions, and these parts were at once surrendered.

All Dairies, Cowsheds and Milkshops are under the constant supervision of the Sanitary Inspector, who visits these premises at irregular times throughout the year.

Applications for the registering of new premises as a Dairy or Milkshop are carefully considered, and applicants are compelled to make the premises comply with the Bye-laws made under the Dairies, Cowsheds and Milkshops Orders. Similarly all Cowsheds are visited, and the owners are compelled to provide proper ventilation and air-space, etc., for their cows. Beyond this the importance of clean milking is insisted upon, and many farmers now supply overalls or aprons for their milkers to wear, and practically all supply towels and basins in which their men wash their hands before beginning to milk.

*Number of Dairies, Cowsheds, etc., in the district :—*

Cow-sheds.		Dairies.		Milkshops.		Persons Registered.
47	...	42	...	71	...	120

## OTHER FOODS.

The Sanitary Inspector is also the Inspector of Meat, and has during the year obtained the Meat Inspector's Certificate of the Royal Sanitary Institute. At all times of the day and particularly upon Saturday night he examines meat and other foods exposed for sale. During the year there have been five surrenders of unsound fish and one of unsound meat.

All Bakehouses are inspected about four times a year. On the whole the bakehouses are well kept. A few are very old and some of these cannot last much longer without structural improvement. There is only one underground bakehouse in the district.

*Number of Slaughterhouses and Bakehouses in the District :*

SLAUGHTERHOUSES.		BAKEHOUSES.
Registered.	Licensed.	
11	10	45
(duration of licence 12 months).		

## SALE OF FOOD AND DRUGS ACTS.

The following table shows the results of the 111 analyses carried out during the year under the above Acts.

Samples.	Number of Samples.	Adul-terated.	Nature of Adulteration.
New Milk .. ..	46	9	Seven, fat abstraction ; 16·6, 10·0, 10·0, 6·7, 3·4, 6·7, 6·0 per cent. respectively Two, added water; 3·6, 6·0 per cent. respectively.
Butter .. ..	7	1	3·5% added water.
Lard .. ..	2		
Rice 3, Ground Rice 2	5		
Flour .. ..	2		
Self Rising Flour ..	4		
Baking Powder ..	6		
Coffee .. ..	2		
Sago .. ..	3		
Scotch Whiskey ..	2		
Ground Ginger ..	1		
Cream .. ..	2		
Jam .. ..	2		
Arrowroot .. ..	2		
Bread .. ..	2		
White Pepper ..	3		
Cayenne Pepper ..	1		
Mustard .. ..	1		
Cheese .. ..	1		
Malt Vinegar ..	2		
Beer and Stout ..	5		
Drugs .. ..	10		
	111	10	

The Drugs consisted of Ipecacuana Wine, 3 ; Tincture of Iodine, 2 ; and one each of Milk of Sulphur, Borax, Olive Oil, Liquorice Powder, and Epsom Salts.

In the two cases of “ added water ” the vendors were warned. In four cases of “ fat deficient ” the vendors were warned, and in two the farmers from whom the milk had originally come were warned.

In all cases in which milk is found to be “ not genuine ” a second sample is taken from the farm from which the milk originally came. In two of the cases above it was found that the milk from the farm was as deficient in fat as the original sample.

In one case of fat deficiency a prosecution was instituted and a fine of 25s., including costs, imposed.

The vendor of the Scotch whiskey that was below standard was warned.



## HOUSING.

The Housing (Inspection of District) Regulations of 2nd September, 1910, have enabled the closure of many unhealthy dwellings to be obtained.

Early in the year a list of houses that needed inspection under the above Regulations was drawn up and many of these houses were inspected during the year.

Houses for inspection were not taken from any particular section of the Borough, it being considered advisable at first to examine any house that seemed to need inspection irrespective of its situation.

In all 42 houses were visited under the above Regulations. The following table gives the result of these inspections, and other matters of importance in connection with the question of housing.

Number of houses 1901.....	7,969.	1911.....	9,500.
Number of houses the rent of which does not exceed £16 (approx.).....	7,628		
Number of new houses built (by private enterprise)...	67		
Number of houses inspected under Sect. 17 of the Housing, Town Planning Act, 1909 ...	...	42	
Number of houses closed ...	...	18	
Number of houses demolished ...	...	1	

In many instances informal notices were served for repairs, and these being complied with, the houses were rendered fit for human habitation.

Several of the houses inspected had been empty for many years and had been left by their owners to fall into ruins. Some of these were not only quite uninhabitable, but were becoming a danger to passers-by, either by reason of loose tiles or slates, or from the bulging of their walls which made the whole structure unsafe.

Among the chief defects discovered in the houses were dampness, dilapidated walls, ceilings, stairs and floors. Some had most insufficient ventilation, whilst in others defects in the roof or walls allowed rain and wind a ready access.

At the present time private enterprise appears to offer sufficient and adequate housing in the district. Building still continues in two chief directions, firstly towards Old Heath, and secondly along the Bergholt Road. During the past year many six-roomed houses have been built in both these directions.

In other parts of the Borough many new houses have been erected, but not to so great an extent as in the districts named.

Strict supervision over the erection of new buildings is kept by the Surveyor, and an Inspector in his department is employed in examining all new buildings both with regard to structure and drainage.

House to house inspection was continued throughout the year by the Assistant Sanitary Inspector. The table below gives a summary of the defects found in the houses visited.

Name of Street.	Number of Houses Inspected.	Premises in Dirty Condition.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Trap	Number of Water Closets.	Number of Outside W.C.'s not supplied with Water.	Premises without Spouting.	Premises Damp or Dilapidated.	Premises without a proper Water Supply.	Overcrowding.	Animals improperly kept.	Other Nuisances.	Separate Larders.
Canterbury Road ..	49	..	..	2	..	1	49	..	..	..	..	..	..	14	4
Ipswich Road ..	73	1	3	..	4	1	54	47	3	4	2	..	..	32	15
Victoria Place, Eld Lane	10	..	..	..	..	..	5	5	..	..	..	..	..	10	..
Greenstead Road ..	181	2	2	2	2	..	123	81	8	7	..	3	3	78	41
Berechurch Road ..	26	..	..	..	2	..	19	15	..	..	..	..	..	20	11
Pownall Crescent ..	61	1	..	2	1	4	61	18	10	5	..	..	..	28	26
Barrington Road ..	44	..	..	..	..	..	44	..	..	2	..	..	..	15	8
Kendall Road (in part) ..	78	..	1	2	..	..	79	48	1	1	..	..	..	65	8
	522	4	6	8	9	6	434	214	22	19	2	3	3	262	113

## FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

No prosecutions were instituted in connection with this work during the year.

Certain defects not remedied at the end of the year are still in hand.

No instance of outwork in unwholesome or infected premises was discovered during the year.

The usual tables are included below :—

### 1.—*Inspection, including Inspections made by Sanitary Inspectors.*

Premises.	Number of	
	Inspections.	Written Notices.
Factories, including Factory Laundries ..	29	5
Workshops, including Workshop Laundries ..	326	47
Workplaces .. .. .	50	6
Total .. .. .	405	58

2.—*Defects found.*

Particulars.	Number of Defects.	
	Found.	Remedied.
Nuisances under the Public Health Acts:—		
Want of Cleanliness .. .. .	32	31
Other Nuisances .. .. .	33	33
Sanitary Accommodation {	5	4
	insufficient ..	
unsuitable or defective	1	0
Offences under the Factory and Workshops Act:		
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) .. ..	3	2
Total .. .. .	74	70

3.—*Home Work.*

Nature of Work.	Outworkers' Lists, Section 107.						
	Lists received from Em- ployers twice a year.			Lists received from Em- ployers once a year.			Notices served on Occupiers as to keeping or send- ing Lists.
	Lists.	Outworkers.		Lists.	Outworkers.		
		Con- tractors	Work- men.		Con- tractors	Work- men.	
Wearing Apparel, making, etc.	72	..	2020	8	..	13	5
Furniture and Upholstery ..	12	..	17	..	..	..	..
Sacks .. .. .	4	..	11	..	..	..	..
Basket making .. .. .	2	..	2	..	..	..	..
Total .. .. .	90	..	2050	8	..	13	5

4.—*Registered Workshops.*

Class.	Number.
Workshops on the Register (s. 131) at the end of the year.	
Bakehouses .. .. .	45
Domestic Workshops .. .. .	20
Laundries .. .. .	12
Dressmaking and Millinery .. .. .	79
Other Workshops .. .. .	412
Total Number of Workshops on Register ..	568



5.—*Other Matters.*

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	5
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	5
Underground Bakehouses (s. 101) :—	
In use at the end of the year .. .. .	1

**BOROUGH INFECTIOUS DISEASES HOSPITAL.**

This hospital is situated at Mile End and lies about three miles from the town.

There are 75 beds in the hospital, and this number includes 20 beds in the Small-pox Block, which is situated half a mile from the rest of the buildings.

The wards consist of two main blocks for Scarlet Fever and Diphtheria, three small separate wards of four beds each, an isolation block consisting of four rooms with glass partitions and a discharge block.

The Small-pox Hospital consists of one large block and a cottage for the use of the nurses in attendance.

During the year 45 cases of Scarlet Fever, 25 of Diphtheria, 2 of Enteric Fever, and 1 of Measles have been treated at the Borough Infectious Hospital, 73 cases in all. Included with these are two cases from outside the Borough, which were admitted by special arrangement, as was also the case of Measles.

There were 5 cases from the military population.

At present there is no hospital accommodation for patients suffering from tuberculosis beyond that provided at the Essex County Hospital, which is situated in Colchester.

**LOCAL ACTS, GENERAL ADOPTIVE ACTS, AND BYE-LAWS IN FORCE IN THE DISTRICT.**

The following adoptive Acts of public health importance are in force in the Borough :—

The Infectious Diseases Prevention Act, 1890.

The Public Health Amendment Act, 1890.

Part of the Public Health Acts Amendment Act, 1907.

The Notification of Births Act, 1907.

The last two Acts were adopted during 1911. The following Sections of the Public Health Acts Amendment Act, 1907, were adopted :—

Part II.—Sections 21, 23 and 33.

Part III.—Sections 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49 and 51.

Part IV.—Sections 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 65 & 67,

Part V.—Part VI. and Section 95 in Part IX.

There are also Bye-laws in force in the district in respect of the following :—

Cleansing and Scavenging.	Prevention of Nuisances.
Common Lodging Houses.	Slaughter Houses.
New Streets and Buildings.	Water Closets.

and Regulations made under the Dairies, Cow-sheds and Milk-shops Orders of 1885, 1886 and 1899.

Under Section 51 of the Public Health Acts Amendment Act, 1907, each of the following trades, businesses or manufactures have been declared an offensive trade.

Blood Drier.	Fat Melter or Fat Extractor.
Fish Frier.	Glue Maker.
Gut Scraper.	Leather Dresser.
Rag, Bone and Skin Dealer.	Size Maker. Tanner.

There are two local Acts that deal with paving, cleansing, and the general improvement of the town, but no action has been taken under either of these in connection with matters of Public Health importance for many years past.

The two Acts are—51 George III., cap. 43, 6th May, 1811, and 10 & 11 Victoria, Session 1847.

## CHEMICAL AND BACTERIOLOGICAL WORK DURING THE YEAR.

The Lexden Springs Water Supply to the town was regularly examined bacteriologically every month, and the mixed water from the mains was twice examined chemically during the year.

Besides these, 7 other bacteriological examinations and 1 other chemical examination of water supplies in the district were carried out.

The following table gives the results of other bacteriological work carried out in the laboratory.

Examination of—	Specimens sent by Medical Practitioners.		Specimens taken by, or under the direction of, the M.O.H.		Totals.	
	Positive.	Negative.	Positive.	Negative.	Positive.	Negative.
Throat or Nose Swabs for Diphtheria Organism..	31	130	44	221	75	351
Sputum for the Tubercle Bacillus..	31	48	3	4	34	52
Blood for Widal's (Typhoid) Reaction..	2	8	—	1	2	9

All the swabs taken by the Medical Officer of Health were from cases in the hospital or from persons who had been in contact with persons suffering from diphtheria.

During the year 131 contact-swabs were examined, and 3 of



these gave positive results. These 3 contacts were removed to the Isolation Hospital and their throats treated until free from infection.

## THE INFECTIOUS DISEASES.

### *Infectious Diseases Notified, 1902-1911.*

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Small Pox .. ..	3	24	1	0	0	0	0	0	4	0
Scarlet Fever ..	47	100	257	223	37	45	128	82	79	56
Diphtheria .. ..	162	54	56	60	29	18	41	29	32	29
Typhoid Fever ..	9	17	17	12	12	8	11	5	2	4
Erysipelas .. ..	25	46	38	38	51	24	22	22	30	45
Puerperal Fever ..	1	0	3	0	0	2	1	4	4	6
	247	242	372	333	129	97	203	142	151	140

### *Deaths from Infectious Diseases registered in the Borough, 1902- 1911*

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Small Pox .. ..	1	5	0	0	0	0	0	0	2	0
Scarlet Fever ..	1	1	6	3	1	0	1	1	2	2
Diphtheria .. ..	15	5	7	10	3	1	5	2	2	3
Typhoid Fever ..	2	2	4	2	2	0	2	0	1	0
Erysipelas .. ..	0	0	2	0	3	1	1	2	3	2
Puerperal Fever ..	0	0	2	0	0	4	0	2	2	3
Measles .. ..	2	6	12	0	9	1	9	6	1	7
Whooping Cough ..	10	7	17	5	19	10	7	3	12	5
Phthisis .. ..	62	45	48	49	36	45	47	39	49	27

### *Monthly Notifications, 1911.*

Month.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Phthisis.	Total.
January .. ..	3	3	..	3	..	4	13
February .. ..	1	..	..	5	2	4	12
March .. ..	1	5	..	4	1	4	15
April .. ..	2	3	..	3	..	12	20
May .. ..	2	1	..	4	1	9	17
June .. ..	1	..	..	2	1	7	11
July .. ..	1	4	..	5	..	5	15
August .. ..	..	5	..	7	..	2	14
September ..	7	..	..	2	..	7	16
October .. ..	10	1	..	2	1	1	15
November ..	21	2	1	4	..	3	31
December ..	7	5	3	4	..	2	21
Year 1911.. ..	56	29	4	45	6	60	200



## SCARLET FEVER.

There were 56 cases of Scarlet Fever notified in the Borough. 44 of these occurred in the last four months of the year. This increase was partly due to an outbreak of 12 cases that occurred at the Royal Eastern Counties' Institution for Imbeciles and Idiots.

A small outbreak also occurred in connection with St. John's School, Ipswich Road. This is a small school near the Borough boundary lying about two miles from the centre of the town. Several children were found to be affected with the disease, and it was reported that some of the children who attended the school from outside the borough also had the disease, whilst the parents of other children were keeping them away from fear of infection.

It was therefore considered wise to close the school for a fortnight, and during this interval the school-rooms and all the school books were disinfected.

After the school re-assembled no further cases occurred.

The majority of the Scarlet Fever cases were removed to the Borough Infectious Diseases Hospital, 44 or 79 per cent. receiving treatment in this institution.

By arrangement one case of Scarlet Fever that occurred outside the district was removed to the hospital.

One death from Scarlet Fever occurred at the hospital.

This patient had a malignant form of the disease and there was little or no chance of recovery, the child only living 6 days from the beginning of the illness. One death from Scarlet Fever of a patient, who was not removed to the hospital, also occurred in the district.

The above cases appear to have arisen from direct contact during school attendance or from direct personal infection, and in no case was infection traced to water, milk, or other article of food.

The average duration of cases of Scarlet Fever in hospital was 43 days.

## DIPHTHERIA.

Only 29 cases of Diphtheria were notified during the year, and at no time was the disease at all prevalent. All the cases but four were removed to the Infectious Diseases Hospital, this being a percentage of 86 cases removed.

Two deaths from Diphtheria occurred at the Hospital, one upon the day after admission, and one after remaining in the hospital for 3 months. This child was admitted suffering from severe broncho-pneumonia, following whooping-cough, from which she never completely recovered.

The average duration of cases of Diphtheria in hospital was 46 days.

Two other deaths from Diphtheria occurred in the town, one at the Essex County Hospital and one upon the day of notification.

One or two of these cases arose most probably from direct personal infection, but the majority were isolated cases the origin of which could not be traced with any certainty. In no case was the milk or water-supply considered to be under suspicion.

## **ENTERIC FEVER.**

Four cases of Enteric Fever were notified in 1911 ; one of these was removed to the Infectious Diseases Hospital. Two cases occurred at the General Hospital, but careful enquiry could not discover the origin of these cases. The last case certainly came into the Borough while sickening for the disease.

After the occurrence of any one of these three diseases careful disinfection is carried out at the house of the patient, and special precautions are adopted to prevent the spread of the disease by personal contact, library books, laundry or wearing apparel.

Notices are sent to the head teachers of Day Schools and the Superintendents of Sunday Schools, excluding the children in the house until a re-admission notice is sent, and in cases of diphtheria all persons in the house and other "contacts" have swabs taken from their throats which are cultivated and examined for the Diphtheria organism.

Also no person who has suffered from diphtheria is considered to be free from the disease until three consecutive negative swabs have been obtained.

## **THE NON-NOTIFIABLE INFECTIOUS DISEASES.**

During 1911 a more complete system was adopted for dealing with these diseases.

The system now in use is for the School Nurse to visit the homes of children notified by head-teachers and fill in a special enquiry card. Upon the back of the card she fills in the names of all other children in the house, whether they have had the disease or not, and the names of the Day and Sunday Schools that they attend.

Notices are then sent from the office to the head-teachers, giving the names of children to be excluded, and the disease from which they are suffering, or with which they have been in contact.

Upon the back of these exclusion forms is stated the periods that a child suffering from an infectious disease, or those who have been in contact with such a child, shall be excluded. In this way the teacher knows when a child should return to school, and if he does not return at the right time the attendance officer visits and is able to report if further cases have occurred in the house or not.

Both School Nurse and Attendance Officer in all cases of infectious disease urge parents to seek medical advice.



It is probable that the new system of school exclusion for these infectious diseases will delay an outbreak in a school, and may even prevent an outbreak altogether, but the system is by no means ideal.

Notification by medical practitioners would probably not afford so much information as the present system of notification by head-teachers. For in a great many cases medical aid is not sought at all, and in many others a doctor is only called in when the disease is well advanced.

One great fault of the present system is that notification absolutely ceases with the beginning of the holidays. This difficulty can only be avoided in two ways, either by notification by the parent or by the medical attendant.

Of these two the former seems the preferable for reasons given above. Even now, fairly frequently, parents send word to the Public Health Offices when one of their children is suffering from measles or some similar infectious disease.

It seems a great pity that the Epidemic grant was discontinued. From the public health point of view it is necessary to exclude from school both children suffering from Infectious Diseases and children who live in contact with children so suffering, if any attempt at all is to be made to prevent the spread of infection. Yet the Education Grant now absolutely depends upon the attendance of children, whatsoever be the cause of absence, and so Education Authorities must either submit to great reduction in their Education Grant in times of epidemic, or urge the Health Authority only to exclude the actual sufferers until the percentage of attendance is so low that it is cheaper to close the school.

In the spring, Measles was introduced into the Borough at Mile End, probably from Boxted, where it was very prevalent at the time.

The Mile End School was visited several times between the tenth and fourteenth day after the first case, and some fifty children were excluded, as they showed very early signs of Measles.

In a few days every one of these fifty had the disease, and in another fortnight practically every child in the school who had not had Measles previously, had the disease.

Meantime steps had been taken to try and prevent the disease reaching the town. Mile End lies about a mile and a half to the north of the town, and the next school towards the town is North Street School.

This school was visited, and all those children who had not had Measles and who lived beyond the railway arch, that is towards Mile End, were excluded for a fortnight from the day school, and any who attended either of the Mile End Sunday Schools were also excluded from these schools.



At the end of the fortnight all these children were visited and one was found to be suffering from Measles.

This child was excluded, and all the others allowed to return to school.

By these means the spread of the disease was undoubtedly checked, and North Street School was only attacked when the disease was in the town, and it was then introduced into the school by children living on the town side and not on the Mile End side.

After Mile End School, the next to be attacked was St. John's Green School ; here the disease was introduced by the brother of a child who continued to attend while his brother, who had lately returned from London, was ill at home ; unfortunately the brother's illness was Measles.

From this school, which lies nearly in the centre of the town, the disease spread slowly but surely from school to school, and it will probably not leave the Borough until every school has been affected.

In the Autumn cases of Mumps were reported from Stockwell Street School and later from the Central and Culver Street Schools. In none of these was the outbreak at any time extensive before the Christmas holidays, but unfortunately during these holidays there were probably many opportunities for the disease to spread.

Cases of Whooping Cough and Chicken Pox also have occurred during the year, but to no very great extent. The following table gives the numbers of cases of the different diseases which were notified by head teachers, and afterwards verified as far as possible by the School Nurse.

The number of cases of each disease is arranged in four-weekly periods :—

Measles.	Whooping Cough.	Chicken-pox.	Mumps.
..	..	7	1
..	3	24	2
..	3	19	..
7	3	2	..
65	4	17	1
19	..	11	..
52	19	..	1
60	4	11	..
24	5	..	..
96	..	..	4
97	2	8	19
60	6	1	39
46	..	..	32
526	54	100	99

Disinfectant is supplied from the Public Health Offices to all persons attending cases of infectious illness. In the case of measles, during the fourth week of the disease the disinfectant visits the house and leaves a bottle of disinfectant and a leaflet which tells parents how to use it. He also enquires if any further cases of the disease have occurred in the house, and if so reports the fact at the office.

## TUBERCULOSIS.

A special report dealing with this subject was prepared during the year. In it a review was given of the methods for preventing the spread of tuberculosis at present employed in Colchester; also suggestions were made for extending the preventive measures, and for improving the condition of those ill with the disease.

There is then no reason to repeat what has already been embodied in a Special Report.

Upon 1st May, 1911, the Public Health (Tuberculosis in Hospitals) Regulations came into force. The tables below give the number of patients notified in 1911, whether these notifications were received under either of the Tuberculosis Regulations or under the system of voluntary notification, and the number of notifications transferred to or received from other districts.

		Number of Patients notified in 1911 (excluding Non-Residents).
Total number of cases notified	...	60
Number notified under Voluntary System	...	35
Number notified under Hospital Regulations, 1911	...	17
Number notified under Tuberculosis Regula- tions, 1908	...	8
		Number of notifications received in 1911.
Number of voluntary notifications received	...	42
Number received after May 1st, under Hospital Regulations, 1911	...	17
Notifications under the Tuberculosis Regulations Order, 1908, from—		
Medical Officer of Workhouse Infirmary	...	13
District Medical Officers	..	2
Master of Workhouse Infirmary	...	4
Relieving Officers	...	1
		Number of notifications transferred in 1911.
Under Hospital Regulations, 1911—		
Number of Residents transferred from other Districts to Colchester	...	4
Number of Non-Residents transferred to other Districts from Colchester	...	13

All cases notified were from the civilian population, no cases being notified from the garrison.

The following table gives the number of deaths of Residents from Tubercular disease and the Phthisis death-rate for the last 10 years—

Year.	Deaths from Phthisis.	Deaths from other varieties of Tuberculosis.	Phthisis Death-rate.
1902	50	21	1.29
1903	36	11	0.91
1904	41	17	1.03
1905	44	12	1.09
1906	32	20	0.79
1907	44	12	1.07
1908	45	11	1.08
1909	38	21	0.90
1910	45	14	1.06
1911	29	10	.66
Average for 10 years—1902-1911.	} 41	15	.98

Of the 60 cases notified during 1911, 17 died before the end of the year.

9 died within 1 month of notification.

6    "       "   3 months       "

2    "       "   6       "       "

### PLAGUE.

Early in the year special work was undertaken to try and find out if there were any rats in the district infected with Plague.

The whole district was divided into eleven divisions and a rat-catcher was engaged to visit each division in turn and catch as many rats as possible from that division. One complete day was spent in each division and each division was visited twice.

Each rat when caught was killed, dipped into disinfectant solution and labelled, the label showing the place and district in which the rat was caught. The rat-catcher was accompanied by one of the Sanitary Inspectors, who was responsible for seeing that this was carried out exactly.

Every evening all the rats caught during the day were brought to the Public Health Offices, and from there sent, carefully packed in double boxes, to a laboratory in Ipswich, where they were examined by experts engaged by the Local Government Board.

In this way 348 rats were caught and sent off. All of these but five were found to show no signs of Plague, and of these five only one was reserved for a more detailed examination, and this one, after complete examination, was also found to be negative.



In August, the Local Government Board made a further examination of rats in the district. At first 23 rats were caught and sent to Ipswich in the same way as had been done in January, but then fresh arrangements were made. Seven constables in outlying districts received rats from anyone who caught them, and after disinfecting and labelling them sent them to Ipswich. The rat-catcher was also employed catching rats and sending them to be examined.

In this way, between the 8th and 29th of September, 373 more rats were sent to Ipswich for examination. All of these also proved to be negative.

The rat-catcher, who had been employed catching rats for these special examinations, was engaged to continue to catch rats in the district by the advice of the Borough & Port Health Committee.

There can be no doubt that a great deal of good will result, for rats do an immense amount of harm, and the recently added risk of plague-infection will be greatly reduced.

Before the arrangements were made for sending rats to Ipswich, rat-virus was supplied free to anyone applying at the Public Health Offices, and notices to this effect were published in the town.

A letter was also sent to all the medical practitioners in the district, informing them that cases of pneumonic plague had occurred in a neighbouring district, and asking them to notify to the Medical Officer of Health any suspicious cases that might occur in their practices.

### **SMALL-POX AND VACCINATION.**

No cases of Small-Pox occurred during 1911, but it is to be noted that cases of Small-Pox occurred in four of the past 10 years, and in 1903 there was a serious outbreak of 24 cases with 5 deaths.

Vaccination and re-vaccination are therefore of the greatest importance, yet the conscientious objector has increased to such an extent that, should Small-Pox again visit Colchester and be introduced into the Infant Schools, there is every likelihood of an extensive and very fatal outbreak.

Number of Vaccination and Conscientious Objections from 1906 to 1910.

Year.	Number of Births.	Number of Vaccinations.	Number of Conscientious Objections.	Percentage of Vaccinations and Objections to the number of Births.	
				Vaccinations.	Objections.
1906	969	707	38	72	4
1907	999	724	61	72	6
1908	976	655	163	65	16
1909	998	615	216	62	22
1910	958	509	264	53	28

## MORTALITY IN CHILD-BIRTH AND IN INFANCY.

During the year under consideration an application was made by the Borough Council to the County Council asking the latter to delegate their powers under the Midwives Act, 1902, so far as they affected the Borough, to the Borough Council.

This the County Council were not willing to do.

In a town of the size of Colchester the midwives need constant supervision and advice, and many of them come to the Medical Officer of Health for advice. He also receives the first notice of the occurrence of Puerperal Fever, for the notification is sent by the medical attendant to him, and he makes all the arrangements for disinfection of the midwife's bag, clothes and instruments.

In this way he is kept in constant touch with the work of the midwives, and now that the Notification of Births Act, 1907, has been adopted the work of the Public Health Department comes into still closer relation with that of the midwives.

For these reasons it would appear that the delegation of the powers under the Midwives Act, 1902, would have enabled the Borough Council to keep very careful supervision over the work carried on in the District under this Act.

There were 6 cases of Puerperal Fever during the year, and of these 3 died.

The Notification of Births Act, 1907, came into force in Colchester upon 1st May, 1911.

This Act has been found of very great use, and little or no difficulty has arisen in connection with it.

The whole of the visiting and the distribution of feeding circulars, and, during the summer months, circulars upon the prevention of Infantile Diarrhoea, was undertaken by a Voluntary Health Visitor, who showed untiring energy and the keenest interest in the work she undertook.

The tables below are compiled from notes that were taken by her during her visits.

The visits paid to the parents of infants from the 1st of January to the 1st of May refer to infants of from one to seven weeks old, the reason being that they could not be visited until the copies of the birth registrations were received from the registrars.

*Food given to 242 babies visited from 1st January to 1st May :*

Breast Fed ...	...	...	...	211
Breast and Cow's Milk ...	...	...	...	2
Breast and Condensed Milk	...	...	...	2
Cow's Milk and Water or Barley Water	...	...	...	21
Condensed Milk	...	...	..	2
Patent Food...	...	...	...	4



*Method of Feeding—*

Boat-bottles ...	...	...	...	22
Spoons ...	...	...	...	5
Long Tube Bottles ...	...	...	...	4

Some parents had left the town, and some were never at home when a visit was paid, but only 35 babies were not visited for such reasons. In only one case did a parent refuse to see the Health Visitor.

After May 1st the births of all children had to be notified to the Medical Officer of Health within 36 hours.

This made it possible for visits to be made at fixed intervals, and it was arranged for the first visit to be made during the first week after birth but after the third day, the second visit to be made during the second week and third during the fourth week.

The following tables show the information obtained, and the results of visiting, under the Notification of Births Act :—

Number of Children born alive and notified in accordance with the Act ...	...	...	...	549
Number of Children born alive and notified later than the time specified in the Act ...	...	...	...	16
Number of Children born alive and not notified ...	...	...	...	78
Number of Still-Births notified in accordance with the Act...	...	...	...	15

In all cases in which the birth of a child was notified after the period mentioned in the Act had elapsed, and in cases in which the birth was not notified at all, warning notices were sent to those persons who should have notified.

*Methods of Feeding of 287 Infants visited after May 1st under the Notification of Births Act.*

*First Visit.*

Breast Fed...	...	...	285	
Cow's Milk and Water ...	2	Boat-Bottles used ...	2	
Number of Infants visited once 287.				

*Second Visit.*

Breast-Fed...	...	...	263	
Breast and Cow's Milk ...	2	Boat-bottles used ...	6	
Cow's Milk and Water ...	3	Spoon used... ...	1	
Condensed Milk ...	2			
Number of Infants visited twice 270.				

*Third Visit.*

Breast-Fed...	...	...	227	
Breast and Cow's Milk ...	2	Boat-bottles used ...	9	
Cow's Milk and Water ...	7	Spoons used ...	2	
Condensed Milk and Breast	1	Long-tube Bottle used ...	1	
Condensed Milk ...	2			

Number of Infants visited three times 239.



The above table shows the excellent results obtained from the adoption of the Notification of Births Act and the visiting consequent thereto.

Out of 239 babies that were visited at the end of their first month of life, 227 were still being breast-fed and only one of those not breast-fed was being fed from a bottle with a long tube.

In cases in which a doctor was in attendance, no visits were paid and the leaflet upon infant-feeding was not left at the house.

### INFANTILE DIARRHŒA AND MORTALITY.

In 1910 only 6 infants under one year died from diarrhœa ; the chief reason for this being that the summer of 1910 was wet and cold—but the summer of 1911 was exceedingly hot, and the heat continued for several months, with the result that 35 infants under one year died of diarrhœa.

As 1911 was an exceptionally hot year, it is better to compare the number of infantile diarrhœa deaths of 1911, with the number in a similarly hot year. The summer of 1904 was exceptionally hot and during the summer of that year 59 infants died from diarrhœa.

The same precautions were taken for the prevention of Infantile Diarrhœa in 1911 as in 1910, and in this work, even more than in the distribution of feeding leaflets, the Voluntary Health Visitor was untiring, and undoubtedly very many babies have her to thank for the fact that they lived through their first summer.

The table below gives the information obtained during the summer months by the voluntary visitor as to the feeding of infants.

How Fed.				3—6 mths.	6—9 mths.	9—12 mths.	Total
Breast-Fed	...	...	...	136	107	15	258
Breast and Cow's Milk	...	...	...	5	3	—	8
Cow's Milk and Water, or Barley							
Water	...	...	...	25	21	15	61
Patent Food	..	...	...	5	6	—	11
Condensed Milk	...	...	...	4	6	—	10
Bread Sop or other Foods	...			—	2	12	14
Number of Children visited...				175	145	42	362

It will be seen that of the 320 infants visited of between 3 and 9 months old, 243 were entirely breast-fed and only 23 were fed upon condensed milk, patent or other food.

Out of 94 infants that were fed from bottles 79 were fed from boat-shaped bottles, and only 15 from bottles with long tubes. Last year, after the same visiting, it was found that in 34 cases bottles with long tubes were used.

The Voluntary Health Visitor paid more than 1,700 visits during the year, in many cases visiting the same house a second or third time in order to see the mother and explain the feeding paper or leaflet upon the prevention of Infantile Diarrhœa.

## INQUESTS.

Mr. H. Geoffrey Elwes, the Borough Coroner, has again kindly supplied the following details relative to inquests held in the Borough :—

Cause of Death.	Males.	Females.	Total.
Manslaughter .. .. .	1	1	2
Suicide while Insane .. .. .	9	2	11
Disease aggravated by neglect .. .. .	..	1	1
Accident or Misadventure .. .. .	6	3	9
Natural Causes .. .. .	4	2	6
Open Verdicts :—			
Drowning .. .. .	4	2 } 1 }	7
Injuries .. .. .	..		
Other Causes.. .. .	..		
Stillborn .. .. .	1	..	1
	25	12	37

In two of the above cases the deceased did not reside in the Borough.

Besides these cases, 21 other cases were reported to the Coroner, but after preliminary enquiry no inquest was deemed necessary.

## RAINFALL RETURNS.

Month.	Total Depth (inches)		Greatest fall in 24 hrs. (at Osborne St. Depot)		Number of days on which 0.01 in. or more fell (at Osborne St. Depot).	Rainfall for 1910 (at Osborne St. Depot).
	Lexden.	Osborne St. Depot.	Depth.	Date.		
January .. .. .	1.07	1.00	.25	6th	11	1.18
February .. .. .	1.00	.91	.30	27th	10	2.03
March .. .. .	1.96	1.77	.41	22nd	16	.93
April .. .. .	.85	.74	.23	26th	10	1.41
May .. .. .	.74	.76	.49	14th	5	2.84
June .. .. .	2.23	1.96	.35	16th	8	1.56
July .. .. .	.35	.30	.12	24th	5	1.57
August .. .. .	.96	.89	.45	21st	6	2.33
September .. .. .	1.47	1.14	.43	13th	7	.82
October .. .. .	2.30	2.29	.65	23rd	12	1.24
November .. .. .	3.26	3.03	.84	18th	17	2.87
December .. .. .	3.73	3.71	.62	20th	25	3.06
Total .. .. .	19.92	18.50			132	21.84

The details for the above table were kindly supplied by Mr. S. F. Hurnard, and the Borough Surveyor.

TABLE I.

*Vital Statistics of the Whole District during 1911 and Previous Years*

Year.	Popula- tion esti- mated to middle of each Year.	Births			Total Deaths Registered in the District.		Transferable Deaths		Nett Deaths belonging to the District.			
		Un-corrected Number.	Nett.		Number.	Rate.	Of Non-Residents regis- tered in the District.	Of Residents not regis- tered in the District.	Under 1 year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906	40,540	969	969	23·9	537	12·2	32	3	125	129·0	508	12·5
1907	40,970	999	999	24·38	517	12·6	18	3	84	84·0	502	12·25
1908	41,450	976	976	23·55	515	12·4	32	0	88	90·2	483	11·65
1909	41,835	998	998	23·85	516	12·3	25	5	89	89·0	492	11·8
1910	42,275	958	958	22·6	551	13·0	43	3	87	90·1	511	12·0
1911	43,463	972	975	22·4	547	12·5	32	24	105	107·7	539	12·4

Total population at all ages, 43,463.

Number of inhabited houses, 8,997.

Average number of persons per house, 4·8.

Area of District in acres (exclusive of area covered  
by water), 11,333.At Census of  
1911.



TABLE II.

*Cases of Infectious Disease notified during the Year 1911.*

Notifiable Disease.	Number of Cases Notified								Total Cases Notified in each Locality (e.g. Parish or Ward) of the District.				Total Cases Removed to Hospital.
	At all Ages.	At Ages—Years.							North.	South.	East.	West.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.					
Diphtheria (including Membraneous Croup) ..	29	2	5	17	4	..	1	..	6	11	6	6	25
Erysipelas .. ..	45	1	..	3	3	11	18	9	9	11	18	7	..
Scarlet Fever .. ..	56	1	10	35	7	3	..	..	22	4	19	11	44
Enteric Fever .. ..	4	..	..	1	1	2	..	..	1	..	1	2	1
Puerperal Fever .. ..	6	..	..	..	1	5	..	..	..	2	1	3	..
Phthisis {	Under Tuberculosis Regulations. 1908	8	..	..	3	1	4	..	..	..	..	8	..
	Under Tuberculosis Regulations, 1911	17	..	..	8	7	2	..	5	5	2	5	..
	Others .. ..	35	..	..	13	8	9	4	1	9	12	5	9
Total .. ..	200	4	15	69	35	38	29	10	52	45	52	51	70

## Isolation Hospital—

Name and Situation—Myland Infectious Hospital, Colchester.

Total available beds, 75.

Number of Diseases that can be concurrently treated, 4.

TABLE III.  
*Causes of, and Ages at, Death during the Year 1911.*

Causes of Death.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
All causes : { Certified ..	533	102	33	18	19	30	65	92	174	124
{ Uncertified ..	6	3	..	1	..	..	..	1	1	..
Measles .. .. .	9	..	3	3	3	..	..	..	..	..
Scarlet Fever .. .. .	2	..	..	1	1	..	..	..	..	1
Whooping Cough .. .. .	5	1	3	1	..	..	..	..	..	..
Diphtheria and Croup .. .. .	3	..	..	2	1	..	..	..	..	2
Influenza .. .. .	7	1	..	2	..	..	..	3	1	..
Erysipelas .. .. .	3	..	..	..	..	..	1	2	..	1
Tetanus.. .. .	2	..	..	..	..	1	1	..	..	..
Syphilis, Tabes, or G.P.I. .. .. .	9	..	..	..	..	1	5	3	..	2
Phthisis (Pulmonary Tuberculosis) .. .. .	29	..	..	..	2	10	11	4	2	13
Tuberculous Meningitis .. .. .	6	1	..	3	1	1	..	..	..	5
Other Tuberculous Diseases.. .. .	4	..	..	1	..	2	1	..	..	1
Cancer, malignant disease .. .. .	42	..	..	..	..	1	3	20	18	12
Bronchitis .. .. .	40	10	3	1	..	..	1	2	23	4
Broncho-Pneumonia .. .. .	8	1	4	1	..	1	1	..	..	3
Pneumonia (all other forms) .. .. .	11	1	2	..	..	..	1	2	5	3
Other Diseases of Respiratory Organs .. .. .	4	..	..	..	..	..	1	..	3	1
Diarrhoea and Enteritis .. .. .	52	35	11	2	..	..	1	..	3	4
Appendicitis and Typhlitis .. .. .	4	..	..	..	1	..	2	..	1	2
Cirrhosis of Liver .. .. .	10	..	..	..	..	..	2	5	3	5
Nephritis and Bright's Disease .. .. .	12	..	..	..	1	1	..	7	3	6
Puerperal Fever .. .. .	3	..	..	..	..	..	3	..	..	1
Other Accidents and Diseases of Pregnancy and Parturition .. .. .	5	..	..	..	..	..	5	..	..	..
Congenital Debility and Malformation, including Premature Birth .. .. .	36	36	..	..	..	..	..	..	..	3
Violent Deaths, excluding Suicide .. .. .	16	1	3	..	..	4	2	3	3	7
Suicides.. .. .	9	..	..	..	..	..	2	6	1	..
Heart Diseases.. .. .	52	..	..	..	1	1	11	12	27	14
Other Defined Diseases .. .. .	156	18	4	2	8	7	11	24	82	34
	539	105	33	19	19	30	65	93	175	124

TABLE IV.  
 INFANT MORTALITY DURING THE YEAR 1911.  
*Nett Deaths from stated causes at various Ages under  
 One Year of Age.*

Cause of Death.				Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All Causes {	Certified ..	..	15	4	3	7	29	23	22	15	13	102	
	Uncertified ..	..	..	..	..	..	..	1	2	..	..	3	
<hr/>													
Common Infectious Diseases :													
Whooping Cough .. ..				..	..	..	..	..	1	..	..	..	1
Diarrhoeal Diseases :													
Diarrhoea .. ..				..	..	..	1	1	6	5	7	3	22
Enteritis .. ..				..	1	..	..	2	3	5	1	2	13
Tuberculous Diseases :													
Tuberculous Meningitis ..				..	..	..	..	..	..	1	..	..	1
Wasting Diseases :													
Congenital Malformations ..				1	1	..	1	3	1	..	..	..	4
Premature Birth .. ..				10	..	1	1	12	3	..	..	..	15
Atrophy, Debility and Marasmus .. ..				..	..	1	2	8	6	3	..	..	17
Meningitis ( <i>not tuberculous</i> ) ..				..	..	..	..	..	..	..	1	..	1
Convulsions .. ..				..	..	..	1	1	2	2	1	2	8
Gastritis .. ..				..	..	..	..	..	..	1	1	1	3
Laryngitis .. ..				..	..	..	..	..	..	..	..	1	1
Bronchitis .. ..				..	..	..	..	..	1	5	2	2	10
Pneumonia (all forms) ..				..	..	..	..	..	..	..	1	1	2
Other Causes .. ..				..	1	..	1	2	1	2	1	1	7
<hr/>													
				15	4	3	7	29	24	24	15	13	105

Nett Births in the Year.. { Legitimate ... 939  
   { Illegitimate ... 36  
 Nett Deaths in the Year of { Legitimate infants ... 102  
   { Illegitimate „ ... 3

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